

REMARKS

Applicants note with appreciation that the Examiner has acknowledged Applicants' claim for foreign priority under 35 U.S.C. § 119.

It is indicated in the Office Action Summary that the certified copy of the priority document has been received in this National Stage application from the International Bureau.

Applicants respectfully note that this is not a National Stage application; rather, it is a continuation of a PCT application. The certified copy of the priority document was submitted by Applicants on March 24, 2004, and Applicants believe the Office would not have received the priority document from the International Bureau as indicated in the Office Action.

Applicants assume the Examiner meant to indicate simply that the certified copy of the priority document has been received.

Claims 1-20 are pending in this application.

In Paragraph No. 4 of the Action, claims 1-5 and 7-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schuhmann et al (US 5,851,640) in view of Ueda et al (EP 0 613 919 A1) and Beck et al (US 5,214,024).

This rejection is similar to the rejection of claims 1-5 and 7-20 under §103 based on Schuhmann et al. in view of Ueda et al. made in Paragraph No. 6 of the previous Office Action mailed September 22, 2004. In the present rejection, the Examiner has added Beck et al '024.

Applicants submit that this rejection should be withdrawn because Schuhmann et al, Ueda et al. and Beck et al do not disclose or render obvious the multilayer thermoplastic resin film of the present invention, either alone or in combination.

As recited in independent claim 1, the present invention relates to a multilayer thermoplastic resin film. The film includes an intermediate layer and a printing layer positioned on one surface or both surfaces of the intermediate layer. The intermediate layer contains a non-transfer antistatic agent, and the printing layer does not contain the non-transfer antistatic agent. See independent claim 1.

Schuhmann et al does not disclose or fairly render obvious the multilayer thermoplastic resin film of the present invention. As the Examiner recognizes at page 2, four lines from the bottom of the Office Action, the antistatic agent of Schuhmann et al can be added to one or more of the core layer, intermediate layer(s), and top layer(s), as disclosed at col. 9, lines 15-25 of Schuhmann et al. The cited description of Schuhmann et al is merely a general exemplification of additives, and refers as well to other additives such as stabilizers, anti-blocking agents and so on. In addition, the antistatic agent of Schuhmann et al is described as follows at col. 9, lines 26-37:

Any known antistatic agent can be used. Preferred antistatic agents include alkali metal alkanesulfonates, polyether-modified, i.e., ethoxylated and/or propoxylated, polydiorganosiloxanes (polydialkylsiloxanes, polyalkylphenylsiloxanes and the like) and/or the essentially straight-chain and saturated aliphatic tertiary amines having an aliphatic radical with 10 to 20 -carbon atoms, which are substituted by ω -hydroxy-(C1-C4)-alkyl groups, preferred amines being N,N-bis-(2-hydroxyethyl)-alkylamines having 10 to 20 carbon atoms, preferably 12 to 18 carbon atoms, in the alkyl radical. The effective amount of antistatic is preferably in the range from 0.05 to 0.3% wt.

This description is merely an exemplification of common or conventional low molecular weight (that is, transfer) antistatic agents. Because of their low molecular weight, the low molecular weight antistatic agents will be transferred to the surface of the film, and then bleed out over time.

As seen above, Schuhmann et al does not disclose the non-transfer antistatic agent of the present invention, and does not indicate, suggest, or foreshadow the use of non-transfer antistatic agents. Further, Schuhmann et al does not disclose, suggest, or in any way point to or foreshadow the embodiment of the present invention in which a non-transfer antistatic agent is incorporated only in an intermediate layer, and not in a "top" layer.

Turning to Ueda et al, this European patent application discloses a polyetheresteramide and an antistatic resin composition containing it. See the title of Ueda et al's application. Thus, the invention of Ueda is a resin composition comprising a polymer or oligomer having an antistatic property. As stated in Ueda et al's Abstract, the polyether ester amide consists essentially of a polyimide oligomer with carboxylic chain ends having a number average molecular weight of 200 to 5,000 and a bisphenol compound with oxyalkylene units having a number average molecular weight between 300 and 3,000.

The antistatic resin composition of Ueda et al is employed to make injection molded articles, which is entirely different from the sealable, transparent, biaxially oriented multilayer polypropylene film of Schuhmann et al and entirely different from the multilayer thermoplastic resin film of the present invention. At page 10, line 14, Ueda et al refer to using their antistatic resin composition to make "molded articles" and in all of their examples and comparative examples, they evaluated their antistatic resin composition using "test pieces made by injection molding". See Ueda et al at page 9, lines 46-49. See also the examples and comparative examples of Ueda et al, beginning at page 12 of Ueda et al and continuing to page 38 of Ueda et al. The Examiner will kindly note in particular the "Performance Tests." There does not appear to be any disclosure or suggestion in Ueda et al to employ their antistatic resin composition in a

multilayer thermoplastic resin film. Accordingly, a person of ordinary skill in the art would not have been motivated to apply the teachings or disclosures of Ueda et al to the multilayer propylene film of Schuhmann et al. Schuhmann et al and Ueda et al simply do not disclose or fairly render obvious the specific multilayer film of the present invention.

Turning to Beck et al, there are significant differences between the receiver sheet for dye-diffusion thermal transfer printing of Beck et al and the multilayer thermoplastic resin film of the present invention in terms of their respective structures and compositions.

The structure and composition of the receiver sheet of Beck et al is explained below.

In the receiver sheet of Fig. 1, 1 represents a biaxially orientated polyethyleneterephthalate film (substrate); 2 represents a conducting undercoat; 3 represents a dye receiver coat; and 4 represents an antistatic backcoat. In the receiver sheet of Fig. 2, 11 represents a synthetic paper (substrate); 12 represents a subbing layer; 13 represents a conducting undercoat; 14 represents a dye receiver coat; 15 represents a subbing layer; and 16 represents a back-coat.

In these receiver sheets of Beck et al, the dye receiver coats 3 and 14 are layers for effectively fixing a thermal transferred dye. And as Beck et al says, "examples of suitable dye-receptive materials include saturated polyesters soluble in common solvents to enable them readily to be applied to a sheet-like substrate as coating compositions and then dried to form the receiver coat." See Beck et al at col. 1, lines 57 to 61. Beck et al further states that "The receiver coat used in Examples 1-22 was prepared from the following solutions" at col. 6, lines 19 to 20, illustrating that the receiver coat of Beck et al is a coat to be applied to the sheet-like substrate.

The Examiner will kindly note that the receiver coat of Beck et al is formed by the application of a coating composition; that is, it is not a film as the present invention discloses.

The conducting undercoats 2 and 13 of Beck et al are layers provided between the sheet-like substrate and the dye receiver coat. As to the conducting undercoat, Beck et al says, "firstly after application, drying and curing (at 110°C)...." See col. 6, lines 12 to 14. This illustrates that the conducting undercoat of Beck et al is a coat to be applied to the sheet-like substrate. Again, the Examiner will kindly note that the conducting undercoat of Beck et al is also formed by the application of a coating composition; that is, it is not a film as the present invention discloses.

Thus, the invention of Beck et al is a thermal transfer sheet in which a conducting undercoat and dye receiver coat are applied in this order onto a sheet-like substrate, and the sheet-like substrate of Beck et al corresponds to the multilayer thermoplastic resin film of the present invention. Therefore, the invention of Beck et al is entirely different from the multilayer thermoplastic resin film of the present invention. Beck et al says, "[O]n the receiving side of the substrate we find that incorporation of antistatic agents into the receiver coat can ...generate undesired side effects where release agents are present." See col. 2, lines 20 to 24, which the Examiner relies on for the purported motivation for excluding antistatic agent from the surface of the film. However, this description does not indicate that a layer containing an antistatic agent is not provided in the surface layer of the multilayer thermoplastic resin film of the present invention that corresponds to the sheet-like substrate of the Beck et al.

For these reasons, Schuhmann et al, Ueda et al and Beck et al do not disclose or render obvious the multilayer thermoplastic resin film of present claims 1-5 and 7-20. The Examiner is

RESPONSE UNDER 37 C.F.R. §1.116
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respectfully requested to reconsider and withdraw the §103 rejection of these claims based on Schuhmann et al in view of Ueda et al and Beck et al.

Claim 6 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schuhmann et al in view of Ueda and Beck et al, as applied to claims 1-5 and 7-20, and further in view of Almog et al (U.S. 6,767,588).

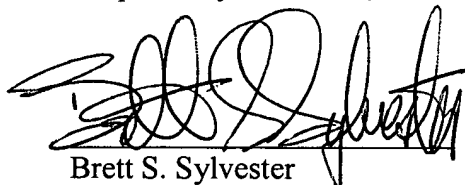
Applicant submit that this rejection should be withdrawn for the same reasons that the rejection of claims 1-5 and 7-20 over Schuhmann et al in view of Ueda et al and Beck et al should be reconsidered and withdrawn.

Almog et al does not make up for the deficiencies of Schuhmann et al, Ueda et al and Beck et al discussed above.

The invention of Almog et al is a method for preparing a plastic surface for printing with a toner, and therefore Almog et al does not disclose, suggest or foreshadow the invention of the present application at all.

Allowance is respectfully requested.

Respectfully submitted,



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